

5 We claim:

1. A seed meter for planting seed in a seed research plot,
comprising,
a housing,

10 a vacuum-type seed plate rotatably mounted within the
housing,
a rotary seed chamber (RSC) mounted in the housing adjacent
the seed plate and movable between first and second
positions, to permit the seed plate to singularly select
individual seeds from the RSC while in a first position,
15 and to dump seed therefrom while in a second position,
a seed intake compartment having a seed inlet end, and a seed
exit discharge end located adjacent the RSC,
a valve in the intake compartment to intermittently prevent
seed from flowing from the inlet end to the discharge
20 end and permit the accumulation of a quantity of seed in
the intake compartment upstream of the discharge end,
power means operatively connected to the RSC and the valve in
the intake compartment to open and close the valve when
the RSC is in its second and first positions,
25 respectively, and
a wing plate on the rotary seed chamber to open and close the
discharge end of the seed intake compartment when the
rotary seed chamber is in its first and second
positions, respectively.

30

2. The device of claim 1 wherein the power means is an air
piston.

3. The device of claim 1 wherein the power means is
35 operatively connected to the valve in the intake compartment
and the RSC to coordinate their respective movements.

5 4. The device of claim 1 wherein the power means is
controlled by a single controller, and the power means is a
single power compartment.

5. The device of claim 1 wherein the RSC and valve are
10 simultaneously moved only by the power means.

6. The device of claim 1 wherein the RSC is operatively
associated with the seed plate to wipe remaining seeds from
the seed plate when the RSC is in the second position.

15

7. A seed meter for planting seed in a seed research plot,
comprising,

a housing,

a seed plate rotatably mounted within the housing,

20 a rotary seed chamber (RSC) mounted in the housing adjacent
the seed plate and movable between first and second
positions, to permit the seed plate to singularly select
individual seeds from the RSC while in a first position,
and to block seeds from entering the seed plate while in
25 a second position,

a seed intake compartment having a seed inlet end, and a seed
exit discharge end located adjacent the RSC,

a valve in the intake compartment to intermittently prevent
seed from flowing from the inlet end to the discharge
30 end and permit the accumulation of a quantity of seed in
the intake compartment upstream of the discharge end,
and

power means operatively connected to the RSC and the valve in
the intake compartment to open and close the valve when
35 the RSC is in its second and first positions,
respectively.

- 5 8. The device of claim 7 wherein the rotary seed chamber includes a wing plate to open and close the discharge end of the seed intake compartment when the rotary seed chamber is in its first and second positions, respectively.
- 10 9. The device of claim 7 wherein the power means is an air piston
10. The device of claim 7 wherein the power means is operatively connected to the valve in the intake compartment
15 and the RSC to coordinate their respective movements.
11. The device of claim 7 wherein the power means is controlled by a single controller, and the power means is a single power compartment.
- 20 12. The device of claim 7 wherein the RSC and valve are simultaneously moved only by the power means.
13. The device of claim 7 wherein the RSC is operatively
25 associated with the seed plate to wipe remaining seeds from the seed plate when the RSC is in the second position.
14. A method of metering seed for planting seed in a seed metering research plot, comprising,
30 taking a plurality of groups of seeds,
sequentially moving seeds from each group of seeds to a seed intake compartment on a seed meter,
simultaneously releasing seeds from the seed intake
compartment to a rotatable seed chamber (RSC) on the
35 meter and stopping seed movement to a seed planter via a vacuum type seed plate at the RSC, and

5 simultaneously starting the release of seeds to the seed
plate from the RSC and stopping the flow of seeds from
the seed intake compartment to the RSC.

15. The method of claim 14 wherein the simultaneous steps
10 are powered and coordinated by a single power means.

16. The method of claim 14 wherein the RSC is operatively
associated with the seed plate to wipe remaining seeds from
the seed plate when the RSC is in the second position.

15

17. The method of claim 14 further comprising the step of
dumping any remaining seeds from the RSC by gravity to a non-
planting location when the flow of seeds is released between
the seed intake compartment to the RSC.